

What is claimed is:

1. A multidirectional input device comprising:

(a) an electronic component outputting a signal in response to rotation and pressing of an operating section;

5 (b) a top substrate holding said electronic component at its center, said top substrate being rockable about a first support pin on a first rocking axis perpendicular to a rotation axis of said operating section;

 (c) a frame surrounding said top substrate and having an rocking support for said first support pin, said frame being rockably supported by a second support pin on a second rocking axis perpendicular to said rotation axis and at right angles to said first rocking axis;

 (d) a bottom substrate having a support for said second support pin; and

 (e) a plurality of push switches arranged at an equal distance and equal angular interval centering on a crossing point of said first rocking axis and said second rocking axis, said push switches being disposed on said bottom substrate in a way such that said push switches contact a bottom face of said top substrate;

 wherein said top substrate tilts toward said bottom substrate by tilting said operating section, and then either one or two of said push switches are activated.

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2. The multidirectional input device as defined in Claim 1 further comprising a knob for operating said electronic component, said electronic component outputting a signal in response to rotation and pressing of said knob.

3. The multidirectional input device as defined in Claim 1 further comprising a hollow outer knob for operating said electronic component and an inner knob in said hollow, said electronic component outputting a signal respectively in response to rotation of said outer knob and pressing of said inner knob.

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4. The multidirectional input device as defined in Claim 1, wherein four of said push switches are disposed on said first rocking axis and said second rocking axis.

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5. The multidirectional input device as defined in Claim 1, wherein a gap is created between a bottom face of said top substrate and said bottom substrate at a position with an equal distance from said crossing point to said push switches on a bisector passing said crossing point of said first rocking axis and said second rocking axis; said gap being 0.8 to 1.4 times an operation stroke of said push switches.

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6. The multidirectional input device as defined in Claim 5, wherein a protrusion is provided on said top substrate for securing said gap.

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7. The multidirectional input device as defined in Claim 1 further comprising switching recognition means, said means outputting a signal different from a signal for a single push switch when two of said push switches are activated simultaneously within a predetermined time.

8. The multidirectional input device as defined in Claim 1, wherein eight of said push switches are disposed at angular positions of 22.5° to both sides of said first rocking axis and said second rocking axis, and said operating section is tiltable in directions of said first rocking axis and said second rocking axis and also to the middle of these axes.

9. The multidirectional input device as defined in Claim 8 further comprising switching recognition means, said means outputting a signal different from a signal for a single push switch when two of said push switches are activated simultaneously within a predetermined time.

10. The multidirectional input device as defined in Claim 8, wherein said push switches with a tactile feedback on activation and said push switches without a tactile feedback are disposed alternately.

11. The multidirectional input device as defined in Claim 10, wherein an operation stroke of said push switches with a tactile feedback on activation is not shorter than an operation stroke of said push switches without a tactile feedback.

12. The multidirectional input device as defined in Claim 1, wherein said top substrate has a small pin extended downward along the rotation axis, said bottom substrate has a center hole on a downward extended portion, and a notch is created around said center hole in a direction corresponding to said tilting so as to guide said small pin.

13. The multidirectional input device as defined in Claim 1, wherein said top substrate has a guide pin in a cylinder extended downward along the rotation axis, said guide pin given a force by a resilient member; said bottom substrate has a spherical cavity on a downward extended portion; and a semi-spherical notch is
5 created around said spherical cavity in a direction corresponding to said tilting so as to guide said guide pin.